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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/063,319	04/10/2002	Lee Cole	ADL	6881

35657 7590 02/09/2007  
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EXAMINER

PAULA, CESAR B

ART UNIT PAPER NUMBER

2178

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	02/09/2007	PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

**Office Action Summary**

Application No.

10/063,319

Applicant(s)

COLE, LEE

Examiner

CESAR B. PAULA

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 10 April 2002.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-17 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-17 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 28 March 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                                | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

### **DETAILED ACTION**

1. This action is responsive to the application filed on 4/10/2002.

**This action is made Non-Final.**

2. Claims 1-17 are pending in the case. Claims 1, and 15 are independent claims.

#### ***Priority***

3. Acknowledgment is made of applicant's claim for domestic priority under 35 U.S.C. 119(e), and based on U.S provisional application # 60/283,012 filed on 4/10/2001, which papers have been placed of record in the file.

#### ***Drawings***

4. The drawings filed on 3/28/2005 have been accepted by the Examiner.

#### ***Claim Objections***

5. Claim 4 is objected to because of the following informalities: The claim depends on itself. Appropriate correction is required.
6. Claims 11-12, and 16-17 are objected to because of the following informalities: Claims 11-12 use a quotation mark, instead of an apostrophe, to indicate "objects' physical position",

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and “designers’ interface” (line 2). Claims 16-17 contain the same discrepancies. Appropriate correction is required.

***Claim Rejections - 35 USC § 112***

1. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

2. Claim 5 is rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. Claim 5 recites *minimizing some metric, such as the sum of the squares of the error in the solution, lines 5-6*. The Examiner was unable to find in the specification the description of *the sum of the squares of the error in the solution* to solve said equations by minimizing some metric as to enable one of ordinary skill in the art to make and use this limitation.

7. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

8. Claims 3, 5, and 12 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

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9. Claim 12 recites "relationships may be viewed" in line 2. The language is vague, since it's not clear whether the relationship are viewed. Relationships may or may not be viewed, is the implication.

This is a sample of antecedent basis problems in the claims. It is requested that the Applicants review all the claims to correct all the lack of antecedent basis problems.

10. Claim 3 recites the limitation "said additional constraints" in line 3. There is insufficient antecedent basis for this limitation in the claim. There is no previous "additional constraint" in the claim to refer to.

11. Regarding claim 5, the phrase "such as" (line 5) renders the claim indefinite because it is unclear whether the limitations following the phrase are part of the claimed invention. See MPEP § 2173.05(d).

***Claim Rejections - 35 USC § 103***

12. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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13. Claims 1-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kanevsky et al (Pat. # 6,300,947, 10/9/2001, filed on 7/6/1998), in view of Borning et al, hereinafter Borning, "Constraints for the Web", ACM Multimedia 97 Seattle Washington, 1997, pp173-182.

Regarding independent claim 1, Kanevsky discloses the design of a web page for display in a certain device. The web page content, such as icon, pictures, text, etc., with associated original characteristics are received and read by an interpreter-- *defining a set of properties associated with each of said content objects; collecting said properties for each of said content objects-* (col. 1, lines 12-46, col.7, line 58-col.8, line 34, fig.6).

Moreover, Kanevsky discloses the definition, and retrieval of the device's characteristics or parameters-- *defining a set of properties associated with each of said output media devices --* (col. 6, lines 20-col.7, line 8, fig.1).

In addition, Kanevsky discloses the design of a web page for display in a certain device. The web page content have associated original characteristics-- *defining a set of properties associated with each of said content objects; collecting said properties for at least one of said output media devices--* (col. 1, lines 12-46, fig.6).

Further, Kanevsky discloses the web page content includes fixed characteristics, such as the font, compression, etc, and variable ones, such as text lengths, locations, window sizes, etc. The parameters of the device include fixed characteristics, such as display height, width, etc, and variable ones, such as memory addresses design of a web page for display in a certain device -- *identifying said properties of said content objects and said output media devices that have fixed;*

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*identifying said properties of said content objects and said output media devices that have variable values -- (col. 6, lines 12-67, col.9, lines 1-46, col.10, lines 17-67, fig.6-7).*

Moreover, Kanevsky discloses rules for prioritizing the grouping of content objects based upon various criteria. The grouping is subject to the physical characteristics of the device-- *defining a set of relationships between said properties of said content objects, said relationships relating selected ones of said properties of each of said content objects with selected ones of said properties of other of said content objects; defining properties of said relationships between said properties of said content objects; defining a set of relationships between said properties of said content objects and said properties of said output media devices-- (col. 11, lines 1-col.16, line 67, col.8, lines 24-67).*

Moreover, Kanevsky discloses grouping, and laying out content icons, in the document based upon a mathematical equation-- *providing said solved values of said variable properties to create a layout for said publication -- (col. 6, lines 20-col.7, line 8, col. 19, lines 27-42, fig.1).* Kanevsky fails to explicitly disclose: *translating said relationships into a series of mathematical equations, wherein said variable properties of said content objects and said output media devices become the variables of said mathematical equations; solving said equations simultaneously for values for said variable properties.* However, Borning teaches the conversion of a document display constraints into a linear equations. These equations contain constant, and variable values. The equations are then used to solve for a range of values for all the unknown variables (page 178, 2<sup>nd</sup> col.-page 179). It would have been obvious to a person of ordinary skill in the art at the time of the invention to combine Kanevsky, and Borning, because of all the reasons found in Borning including providing a document designer with the capability to control

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precisely how the layout of the document should change if the parameters or constraints are modified (pages 174, 176-177).

Regarding claim 2, which depends on claim 1, Kanevsky discloses the adaptation of content to fit the characteristics of the devices' display so as to make it easier to view-- *the number of said relationships between the variable properties is insufficient to completely specify all of said variable properties, wherein the set of said relationships is supplemented by a set of auxiliary relationships chosen to obtain an aesthetically pleasing appearance for the final layout* -- (col.2, lines 1-44, col. 6, lines 20-col.7, line 8, col. 18, lines 20-67). In other words, the content characteristics by themselves are not enough. The device's characteristics are added to bring about an optimized display

Regarding claim 3, which depends on claim 1, Kanevsky discloses grouping content icons based upon the various parameters, range of memory addresses, etc., character, pictures, as mathematical equation-- *one or more of said variable properties of the content objects or of the said output media are constrained to lie within a range of values, said method applying said additional constraints as additional relationships to be maintained* (col. 6, lines 20-col.7, line 8, col.19, lines 27-42, fig.1). Kanevsky fails to explicitly disclose: *and solving for the resulting values*. However, Borning teaches the conversion of a document display constraints into a linear equations. These equations contain constant, and variable values. The equations are then used to solve for range of values for all the unknown variables (page 178, 2<sup>nd</sup> col.-page 179). It would have been obvious to a person of ordinary skill in the art at the time of the invention to combine



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Kanevsky, and Borning, because of all the reasons found in Borning including providing a document designer with the capability to control precisely how the layout of the document should change if the parameters or constraints are modified (pages 174, 176-177).

Regarding claim 4, which depends on claim 4, Kanevsky discloses displaying the content on the device in accordance to an optimal scheme-- *one or more of said variable properties of the content objects or the said output media have a preferred value, said method utilizing the maintenance of the value close in some metric to the preferred value as a auxiliary relationship.* (col. 6, lines 20-col.7, line 8, col.19, lines 27-42, fig.1).

Regarding claim 5, which depends on claim 1, Kanevsky discloses grouping content icons based upon the various parameters, range of memory addresses, etc., character, pictures, as mathematical equation-- (col. 6, lines 20-col.7, line 8, col.19, lines 27-42, fig.1). Kanevsky fails to explicitly disclose: *approximately solving said equations specifying said relationships while minimizing some metric, such as the sum of the squares of the error in the solution.* However, Borning teaches the conversion of a document display constraints into a linear equations. Some variables such as  $v$  is eliminated from linear equations (page 179, 1st ). It would have been obvious to a person of ordinary skill in the art at the time of the invention to combine Kanevsky, and Borning, because of all the reasons found in Borning including providing a document designer with the capability to control precisely how the layout of the document should change if the parameters or constraints are modified (pages 174, 176-177).

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Regarding claim 6, which depends on claim 1, Kanevsky discloses grouping content icons based upon the various parameters, range of memory addresses, etc., character, pictures, as mathematical equation-- (col. 6, lines 20-col.7, line 8, col.19, lines 27-42, fig.1). Kanevsky fails to explicitly disclose: *approximately solving said equations specifying said relationships while minimizing some metric*. However, Borning teaches the conversion of a document display constraints into a linear equations. Some variables such as v is eliminated from linear equations (page 179, 1st ). It would have been obvious to a person of ordinary skill in the art at the time of the invention to combine Kanevsky, and Borning, because of all the reasons found in Borning including providing a document designer with the capability to control precisely how the layout of the document should change if the parameters or constraints are modified (pages 174, 176-177).

Regarding claim 7, which depends on claim 1, Kanevsky discloses grouping content by adding or maximizing the number content objects. The grouping is also performed using the parameters as a mathematical equation-- *solving said equations by maximizing the number of said relationships solved exactly*. (col.7, lines 30-42, col.19, lines 27-42)

Regarding claim 8, which depends on claim 1, Kanevsky discloses grouping content by adding or maximizing the number content objects to optimally display the document. The grouping is also performed using the parameters as a mathematical equation-- *successfully fulfilling the maximum number of constraints based on an ordering of said relationships, said*

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*ordering being chosen to obtain an aesthetically pleasing appearance for the final layout (col.7, lines 30-42, col.8, lines 58-col.9, line 17,col.19, lines 27-42)*

Regarding claim 9, which depends on claim 1, Kanevsky discloses grouping content by adding or maximizing the number content objects. The grouping is also performed using the parameters as a mathematical equation-- *maximizing the number of said relationships solved exactly.* (col.7, lines 30-42, col.19, lines 27-42)

Regarding claim 10, which depends on claim 1, Kanevsky discloses grouping content by adding or maximizing the number content objects. The grouping is also performed using the parameters as a mathematical inequality-- *solving said equations by maximizing the number of said relationships solved exactly* (col.7, lines 30-42, col.19, lines 27-42)

Regarding claim 11, which depends on claim 1, Kanevsky discloses displaying content using the location and format of content objects-- *inferring some of said relationships between said content objects" physical positions from the placement of said content objects within a design.* (col.9, lines 47-col.10, line27, fig.6)

Regarding claim 12, which depends on claim 1, Kanevsky discloses grouping content by adding or maximizing the number content objects to optimally display the document-- *said relationships may be viewed through a designers" interface and verified or disposed of as desired.* (col.7, lines 30-42, col.8, lines 58-col.9, line 17 )

Regarding claim 13, which depends on claim 1, Kanevsky discloses grouping content by adding or maximizing the number content objects to optimally display the document -- *the content objects are classified into one or more groups, each group having one or more content elements, said groups having a particular priority ordering chosen for the particular publication.* (col.7, lines 30-42, col.8, lines 58-col.9, line 17,col.19, lines 27-42)

Regarding claim 14, which depends on claim 13, Kanevsky discloses grouping content icons based upon the various parameters, range of memory addresses, etc., character, pictures, as mathematical equation-- (col. 6, lines 20-col.7, line 8, col.19, lines 27-42, fig.1). Kanevsky fails to explicitly disclose: *eliminating certain ones of said content objects and said relationship until either an exact solution exists.* However, Borning teaches the conversion of a document display constraints into a linear equations. Some variables such as  $v$  is eliminated from linear equations (page 179, 1st ). It would have been obvious to a person of ordinary skill in the art at the time of the invention to combine Kanevsky, and Borning, because of all the reasons found in Borning including providing a document designer with the capability to control precisely how the layout of the document should change if the parameters or constraints are modified (pages 174, 176-177).

Claim 15 is directed towards a method equivalent to the method found in claim 1, except for *translating said relationships into a measure of the preferred aesthetics, solving for the values of said variables by minimizing or maximizing the value of said function,* which is taught

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by Kanevsky's grouping content by adding or maximizing the number content objects to optimally display the document. The grouping is also performed using the parameters as a mathematical equation, (col.7, lines 30-42, col.8, lines 58-col.9, line 17,col.19, lines 27-42), and therefore is similarly rejected.

Claims 16-17 are directed towards a method equivalent to the method found in claims 11-12 respectively, and therefore are similarly rejected.

### ***Conclusion***

I. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Badros et al, "Constraint Cascading Style Sheets for the Web", UIST '99 Asheville, NC, ACM, 1999, pp73-82, Buchanan et al, " Automatic Temporal Layout Mechanisms", Proceedings of the 1<sup>st</sup> ACM int. conf. on Multimedia, pp.341-350, 1993, Borning et al, "Constraint-Based Tools for Building User Interfaces", ACM Trans. on Graphics, Vol.5, No.4, 10/1986, pp.345-374., Orr et al. (Pat. # 5,903,902, and 5,895,476), and King et al. (Pat. # 5,956,737).

II. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Cesar B. Paula whose telephone number is (571) 272-4128. The examiner can normally be reached on Monday through Friday from 8:00 a.m. to 4:00 p.m. (EST).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Stephen Hong, can be reached on (571) 272-4124. However, in such a case, please allow at least one business day.

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Any response to this Action should be mailed to:


Commissioner for Patents

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- (571)-273-8300 (for all Formal communications intended for entry)

  
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2/8/07